Pandemic politics, pedagogies and practices

Pandemic politics, pedagogies and practices: digital technologies and distance education during the coronavirus emergency

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[Post print version of editorial article published in Learning, Media and Technology, 45(2), 107-114. https://doi.org/10.1080/17439884.2020.1761641]

The first special issue of *Learning, Media and Technology* of 2020, entitled 'Education and technology into the 2020s: speculative futures', presented a series of papers looking to the future of critical research on educational technologies. As we write, just a few months later, with the coronavirus pandemic sweeping around the world, the future appears more uncertain than ever. Global infection and illness, population lockdowns, and mass closures of educational institutions have engulfed countries across the planet in the short time between issues of this journal.

The global pandemic is of course not only a serious public health emergency, but a political, economic and social emergency too. Scholarship across myriad disciplines in years to come will examine the medical, political, economic and social factors defining our present moment. Many of these issues will be of interest to readers of *Learning, Media and Technology*. They include political manoeuvring in relation to the pandemic, from misinformation and economic measures to policies of social distancing, quarantining and isolation; the use and misuse of large-scale data, statistics and visualizations; new forms of digitally-mediated work, culture and personal life; surveillance systems for 'contact tracing'; the use of predictive epidemiological modelling; the development of techniques for better public understanding of science; and the political use of behavioural economics as a public pedagogy of population management. Future papers in this journal will be written in the context of changes currently being experienced at planetary scale, and potentially dramatic shifts in the relationships between science, technology and society.

In one key area we feel *Learning, Media and Technology* can and should make a more direct contribution to knowledge and practice during the COVID-19 pandemic: the switch to online and digital education formats and the rise of 'remote' forms of teaching and learning as a consequence of mass closures of schools, colleges and universities. In this moment of pandemic politics, where contests are being fought

at multiple scales and levels over the ways to handle and resolve the crisis, distance education has become a widespread matter of concern for political authorities, education businesses, charities, teachers, parents and students alike. Education has become an emergency matter, and along with it, educational technologies have been positioned as a frontline emergency service. In recent years *Learning, Media and Technology* has become a key publication for critical studies of education and technology. Other outlets have responded to the rapid switch to online education with useful guidance, advice, and references to extant research from promising studies that might support educators to make the best of this new educational emergency. But the need remains for critical reflection on the planetary pivot to digitally-mediated remote and distance education.

We have no wish to denigrate or criticize online distance education, but rather, the aim of this brief editorial is twofold. First, we want to raise a series of critical cautions, based on previous papers and special issues published in the journal, against simplistic and opportunistic claims that educational technologies are a ready-made remedy for the current crisis. Second, we want to issue a call for future research to examine, in up-close detail, the effects and consequences of the expansion and embedding of digital technologies and media in education systems, institutions and practices across the world. We don't necessarily see these issues as new or unique to the pandemic, but they are currently being experienced more acutely and affectively by educators, students and parents around the world, from the early years through to higher education. Within our own specialist area of research and practice, pandemic politics is now playing out through attempts to thoroughly embed public education systems and practices, at international reach, in increasingly powerful technological systems. We raise here four significant issues in education and technology for reinvigorated exploration.

The political economy of pandemic pedagogy

A distinctive approach to pedagogy has emerged as a global norm in the opening months of 2020. Distance education, remote teaching, and online instruction are not new approaches to pedagogy or curriculum design, but they have taken on renewed salience. Debates have already commenced on social media about whether to term current practices 'emergency remote education' in contextual recognition of the extraordinary circumstances in which they have been developed and deployed. These 'pandemic pedagogies' have also become the focus for the education technology industry.

Since the effects of the coronavirus crisis on education systems first became apparent in south east Asia early in 2020, education companies and technology businesses have ramped up their marketing of products to support online learning considerably. Many companies, including videoconferencing and educational

content providers, have offered up previously for-fee services for free for temporary periods, alongside celebrity figures posting livestreaming educational content from workouts and dance classes to guest lessons and online Q&A sessions. To a significant extent, these charitable offers have provided many tools and resources to enable educators to meet the high demands of switching to online teaching under extremely tense conditions and in tightly compressed timelines. Perhaps more importantly, they may help parents, now responsible for supporting their children's remote education, to keep their children occupied, active, and mentally stimulated during periods of population lockdown, isolation and quarantine.

Yet at the same time, it appears clear that certain actors in the edtech industry are treating the crisis as a business opportunity, with potentially long-term consequences for how public education is perceived and practised long after the coronavirus has been brought under control. The marketing of these products to teachers, by email and online on social media, has been intense, as the closure of schools and colleges has become an opportunity for the edtech industry to prove its benefits, to extend its reach, and to grow market share. Early in March 2020, the investment bank BMO Capital Markets predicted a spike in edtech stocks. 'While we are uncomfortable citing "winners" in the coronavirus situation, some companies may be positioned better than others,' it claimed. 'Specifically, those that specialize in online education could see increased interest should the situation worsen' (EdSurge 2020). Edu-businesses such as Pearson have made their online learning services available for free to new subscribing institutions, and launched packages of 'homeschooling' advice, resources and guidance. Many of the world's largest and most successful technology businesses have also expanded their educational services rapidly, including Google, Microsoft, Amazon and Zoom. Markets have long been a central concern of the global edtech industry, but the pandemic may have presented it with remarkable business opportunities for profit-making, as well as enhanced influence over the practices of education.

In a recent special issue of *Learning, Media and Technology*, Hillman, Bergviken Rensfeldt and Ivarsson (2020) speculated that education systems may become increasingly platform-based, especially those systems that already exhibit a high degree of decentralization. The 'platformisation of schooling', in a context where 'schooling as an institution has already been broken-up, decentralised and marketised', they argued, is already leading to 'a situation with little state governance where the dominant technical platforms are amongst few centralising powers uniting schools as a national school system' and 'global commercial platforms incorporated into public education risk challenging education as a public good' (Hillman et al, 2020, 7-8).

Their political economy analysis of educational platformization suggests the need for serious caution regarding the expansion of edtech and other platform companies during the coronavirus pandemic. At the present time, public education has been forcibly decentralized into students' own homes, largely disaggregated from the institutions and practices of education and instead repositioned as a form of homeschooling mediated by technology tools, edu-businesses and other institutions. Many edtech businesses have in fact been seeking to finesse the model of 'distance' education for years. They have sought to make education available remotely from schools or campuses, while also inserting platforms as intermediaries between educational institutions and their students, acting at a distance to shape the possibilities of teaching and learning. The current state of 'pandemic pedagogy', in other words, may not be seen by some businesses as simply an emergency response to a public health and political crisis, but as a rapid prototype of education as a private service and an opportunity to recentralize decentralized systems through platforms.

Beyond simple market-making strategies, a range of coalitions and networks has formed to promote forms of online learning as both a short-term response to the pandemic and a long-term ambition for whole education systems. The Global Education Coalition announced by UNESCO, for example, is an international partnership intended to help countries mobilize resources and implement 'innovative and context-appropriate solutions to provide education remotely, leveraging hi-tech, low-tech and no-tech approaches', both in order to 'mitigate the immediate disruption caused by COVID-19 and establish approaches to develop more open and flexible education systems for the future' (UNESCO 2020). Its partners include Google, Microsoft, Facebook and Zoom alongside influential international organizations the OECD and World Bank, all now aligned to the common mission of extending online education globally. The World Bank has actively worked with government ministries around the world to enable online education, while the OECD has begun to talk of COVID-19 as a crisis of 'human capital' development, and of the pandemic as 'an opportunity for experimentation and for envisioning new models of education and new ways of using the face-to-face learning time' (OECD 2020). These policy-influencing international organizations are now enabling private platforms providers to extend their reach into previously unattainable territories and spaces.

At the national level, coalitions are also promoting their own forms of remote education. In the UK, the Department for Education issued a £300,000 grant to Oak National Academy, a startup online school backed by Teach First (the private teacher education provider) and researchED (an influential network promoting research evidence of 'what works' in the field of education), at the same time as the public broadcaster the BBC revamped its online Bitesize catalogue and iPlayer

content for home learning. The US-based Wide Open Schools, similarly, was established by Common Sense Media and powered by Salesforce to provide 'a free collection of the best online learning experiences for kids,' with partners including Khan Academy, Google, YouTube, Apple and Zoom. Dominant styles of education policy that have historically distributed power to multisector networks are now empowering private companies to become infrastructural substrates to public education, in ways that may solidify and consolidate in years to come.

These snapshot examples indicate how the new pandemic politics, pedagogies and practices of online education, remote teaching and homeschooling have become embedded in political and economic contests. There is also a geopolitical angle, reflecting how technology companies from the US and China have sought commercial advantage and expansion in education (Knox 2020). Global tech platforms are being empowered alongside national and international policy-influencing organizations that seek 'human capital' as the key outcome of education. Emergency education models are being treated as prototypes for education systems to emulate far beyond the pandemic. Although, then, in many respects the switch to online education around the world has been haphazard and chaotic in practice, critical studies will need to locate these changes in the broader political economy of the COVID-19 pandemic, its antecedents and long-term consequences.

Digital inequalities during the pandemic

As articles in this journal have consistently shown (e.g. Beckman et al., 2018) not all young people are the well connected, digitally savvy, 'digital natives' that the rhetoric around young people and technology would have us believe. Instead, there is significant variety in the ways that young people can access, navigate and use the Internet and other new technologies, with an important minority who are excluded entirely. As schools close due to the COVID-19 outbreak, and many teachers look to digital means to connect to their students, education policy makers are beginning to realise that the rhetoric around young people is incorrect, and now some young people are excluded from much of their education and their social networks.

This has led to a well-meaning response – to try to get these young people connected as soon as is possible. But many of those arguing for a move in this direction have not worked in this domain before or are aware of the many past home access schemes to get all young people connected. All young people should have the ability to access and skills to use technology effectively and safely to achieve their own goals (educational and otherwise). Yet it is extremely hard to get such schemes right. Three common questions that such schemes have to address are:

What is an adequate level of digital access? At first glance, this seems to be an obvious question – provide laptops and / or Internet access to those who don't have it. But access is not a dichotomous measure, it is multifaceted. It is about the quality of that access. For example, do all children need their own device? If not, how many young people could reasonably use the same device? What is the age group that such a scheme would impact the most? Is a mobile sufficient, or do young people need a laptop for learning and education? What are the minimum technical specifications a device should have? What kind of Internet connection is sufficient?

How can young people and their families be supported to technology in the home? Young people who do not have digital access at home are likely to have less digital skills than their peers, and it is likely that their parents and guardians also do not have strong sets of digital skills. Using the Internet contains multiple opportunities but also risks. How young people are supported to develop those skills and help protect them from harm is central. Typically, strong filters are placed on devices that make them less usable and less like the digital experiences of their peers. Instead, expert support is required (from teachers or others) to help young people and their families navigate the Internet in a safe and effective way; and also provide them with ways to get assistance if the device breaks or the Internet fails.

How can longevity of the scheme be assured? In the rush to connect young people, quick fixes are being sought, where devices are to be borrowed and Internet connection provided free of charge for a short period of time. However, this uncertainty over ownership and responsibilities stymies use and often causes a great deal of stress as families feel under pressure to begin paying for the Internet once the initial 'free' period is over. Ideally devices should be given to the young person and their families to ensure they have agency over what they use it for and why; and there needs to be clear guidelines about what happens when the Internet gets stopped, with significant care not to push families in to continuing with a scheme that cannot afford.

Beyond these three questions, there are also some fundamental issues that need to be agreed upon. A central focus needs to be defining what 'success' for a particular scheme would mean. In the past, outcome measures of such initiatives have often focused on whether access is provided – e.g. a laptop is delivered and an Internet connection set up. This is reasonable, but then other assumptions, that are not based on any evidence, are made about the 'inevitable' positive benefits the scheme has brought to the young person and their family. However, we know that the benefits from using technology vary widely, with those better off tending to benefit more educationally and socially. Digital connectivity is important, but it does not overcome all inequalities young people face - during COVID-19 or otherwise.

It is crucial to consider how any access scheme connects with the broader plan for providing young people with a distance education of quality. Schools have many roles and purposes, and providing distance education at this time for all young people is hugely challenging. Education is not one thing and is not experienced in the same way. The inequalities in our school system and wider society are only exacerbated by the current crisis. It is therefore really important that all schemes, digital or not, work together to support less well-off young people and schools. A holistic vision will work better than a piecemeal approach.

As readers of this journal know, technology is not a neutral entity that simply does good when people have access to it - it is complex and social cultural artefact. By putting technology into homes that are already likely to be struggling financially, and suffering more since the COVID-19 outbreak, the Internet will provide access to their teachers, information and social support, and all of these things are important. However, the Internet also provides: payday loan companies and gambling companies with easier access to families who are already struggling financially, content and people that young people should not have access to, and data brokers with more information that may negatively impact the families' future.

This, taken together with the problems that we often see with 'EdTech' companies and the kinds of digital education on offer (Sancho-Gil et al., 2020), means that we need to think about dealing with digital inequalities in a different way. The primary reason these families do not have digital access is because of a lack of material resources due to social inequality. These economic realities do not go away as a result of a laptop scheme. Indeed, as this pandemic continues, more and more young people and their families will be in financial hardship and inequalities in society are likely to widen.

Technology cannot fix social inequality. Though access schemes will help (if done well) it is important to think more holistically and in the longer term. We should not simply think about the issues of digital inequalities in relation to questions of access, but instead to see this time as an important moment to support, regulate and design an inclusive digital future for us all, that is part of a society that is more socially just. Social, educational, health and digital inequalities have never been clearer. Perhaps now is a time to make a more decisive set of significant social and digital changes.

Spaces and hierarchies in pandemic times: re-locating digital pedagogy

Being in lockdown in pandemic times and working from home, for those of us fortunate enough to be on the right side of inequality and with the opportunity to do so, means further consideration of the ways in which spatial and temporal relations are changed in the (digital) work we do as educators and researchers. There is no simple mapping of offline onto online that can escape the essential

disjuncture between what is possible and what is impossible under these circumstances, no matter how many times parents and/or educators are told that it is easy and that the 'digital' makes it so.

Articles in *Learning Media and Technology* in recent years, in pre-pandemic times, have explored what happens when technological devices are brought from home into school, critiquing the Bring Your Own Device (BYOD) movement, and exploring the ways in which they alter relations in classroom space-time (e.g. Alirezabeigi et al 2020). The lockdown in many countries occasioned by the pandemic requires us to hold the mirror up to what happens when classroom space-time travels in the other direction, into the home environment, introducing the poly-synchronous world of learning in the digital age into the rhythms of family life. We might call this the Bring Your Own School Home (BYOSH) movement. In this environment, personal screen-time is taken over at the same time as the physical spaces of the home are colonised and co-opted. Those grappling with the delicate ecosystem of parenting in the digital age realise that this is anything but *remote* learning. It is up close and personal and with the customary territorial trade-offs of colonisation. The promise of both the infotainment value (as in the recent BBC here in the UK providing celebrities as teachers) and the familiar hype of 'anytime', 'anywhere' learning are ever present except that this carries the potential promise, or threat, of 'all the time' and 'everywhere'. So, routines are disrupted, but not in the ways nor in the places imagined by ed-tech advertising; spaces are invaded by devices and screens which have now, like the eponymous character in Diana Wynne-Jones's novel *Archer's Goon* (2000), melted into the foreground and, finally, roles are renegotiated and re-imagined under terms and conditions no one thought would ever apply.

Schools, colleges and universities are of course reacting in different ways in this BYOSH environment. Expectations are calibrated differently in different contexts with, at local level in the UK, some headteachers and university chancellors sensibly lowering expectations and pressure on all parties. Transitioning from offline to online teaching and learning has long been found by its earliest researchers and exponents to be complex, problematic and evolutionary, though it can be done by managing the unrealistic expectations that you will be doing substantially the same thing with time, space and material artefacts as you did in face-to-face teaching. As you know by now, if you are currently working at distance with students, you won't be doing the same things. If you are also, perhaps, a parent or carer, simultaneously in receipt of 'online learning' to 'deliver', you will know the additional attention and cognitive overload only too well.

In the recent 'looking to the future editorial' for *Learning, Media and Technology*, (Selwyn et al 2020), the authors speculated on ten areas towards which critical

educational technology researchers should be directing their attention in the next ten years. It was written in pre-pandemic times but anticipates, in many relevant ways, how the locus of control of pedagogy needs to be questioned and even relocated, away from remote, unaccountable, unethical systems and into the hands of educators and communities. The final idea in that piece opens up more exciting and ambitious possibilities than those routinely voiced as technology making things more 'effective', speaking instead to the everyday creativity of what they label 'convivial technologies'. Here we could invoke the notion of practices which speak back to power, where the direction of flow is not about 'content' being delivered downstream by algorithm but about more open, agentive and productive spaces for both learners and educators. We might find these 'third spaces' in practices around digital media in an era when testing and performativity measures are relaxed through circumstances beyond the control of the neoliberal imaginary and where these difficult times produce surprising and hopeful outcomes. Certainly there is work to be done on each of the following: the due diligence associated with the educational technology industry in these times; addressing, not glossing over, the inequalities we see around us; and with paying attention to how we can better identify the practices which flatten hierarchies and generate a productive pedagogy for the times in which we live and work.

Emergency edtech experimentation

Our final reflection here is on the ways that emergency remote teaching has been positioned in 'experimental' terms. According to an article in *Quartz* magazine, coronavirus has catalysed 'the world's biggest educational technology (edtech) experiment in history. With 1.5 billion students out of school and hundreds of millions attempting to learn solely online, the experiment will reshape schools, the idea of education, and what learning looks like in the 21st century' (Anderson 2020). This idea of experimentation makes remote learning students, teachers and parents into laboratory subjects whose contingent experiences and activities are being observed for insights about the future of edtech itself.

The global edtech experiment is also an opportunity to produce very large quantities of student data, as students are forced online into data-intensive digital learning environments at unprecedented scale. For researchers and organizations invested in data scientific forms of analysis in education, as Zimmerman (2020) put it in *The Chronicle of Higher Education*, coronavirus is an opportunity for a 'great online learning experiment':

> Coronavirus … has created a set of unprecedented natural experiments. For the first time, entire student bodies have been compelled to take all of their classes online. So we can examine how they perform in these courses compared to the face-to-face kind, without worrying about the bias of self-selection. It might be hard to get good data if the online instruction only lasts a few weeks. But at institutions that have moved to online-only for

> the rest of the semester, we should be able to measure how much students learn in that medium compared to the face-to-face instruction they received earlier.

The argument exemplified by Zimmerman is that the coronavirus crisis is a natural experimental opportunity for education data scientists–both those in academic education research and analysts working in edtech companies and other edu-businesses–to demonstrate the effectiveness of online education over face-to-face teaching. Zimmerman even argued that it should be considered a kind of moral responsibility for universities to use the chance to figure out if online education outperforms in-person teaching, even though, he said, 'if students showed more gains from online instruction, professors who teach face-to-face classes–like I do–might find their own jobs in peril' (Zimmerman, 2020). The data scientific dream of measuring learning at scale in order to develop a precise understanding of the benefits of remote instruction is clearly animating part of the effort by edtech businesses and associated researchers to utilize the coronavirus emergency as a mass data-gathering and analysis opportunity. And this might ultimately, as Zimmerman suggested, lead to a consolidation of online instruction and, as a consequence, exacerbate worker precarity for educators. The possible contraction of higher education as an on-campus experience, and a shift to remote instruction and learning, is already concerning many educators.

The effort to position pandemic pedagogies as a natural experimental opportunity for education data science to 'prove' the benefits of digital teaching exemplifies the ways that 'datafication' has been presented as a transformative force in education in recent years. As Jarke and Breiter (2019) put it in their introduction to a special issue of *Learning, Media and Technology* on 'The datafication of education', 'the education sector is one of the most noticeable domains affected by datafication, because it transforms not only the ways in which teaching and learning are organised' and raises 'expectations about 'increased transparency, accountability, service orientation and civic participation but also associated fears with respect to surveillance and control, privacy issues, power relations, and (new) inequalities' (Jarke & Breiter, 2019, 1). From this perspective, efforts to datafy the student experience of education during the pandemic need to be understood as an extreme manifestation of longer-term aspirations to render education legible as numbers through increasingly pervasive technologies and techniques of surveillance. The COVID-19 pandemic is being treated as a laboratory experiment in mass-scale datafication of education in ways that might further empower and advance the interests of data-driven edtech companies, researchers and advocates. As millions of students sign up to new platforms in order to be able to access education during the pandemic, long-running concerns over data privacy and the use of data for student profiling and control need to be brought back into focus.

Towards future research

We raise the four discussions above as critical reflections on ongoing significant changes with potentially long-term consequences for education generally and for research and practice in digital media and learning specifically. Pandemic education may also illuminate something of longer-term changes in the relationship between technology and society, with digital services adopted unproblematically as solutions to any problem (also reflected in current tensions over surveillance and privacy implications of 'contact tracing' apps). Yet these are not all necessarily new issues or problems. Contributors to *Learning, Media and Technology* have for many years been confronting questions and challenges of the political economy of edtech, digital inequalities, spaces and futures of learning, and datafication of education. The coronavirus emergency has intensified and expanded these. Rather than calling for a specific research agenda related to coronavirus, our more modest hope is that the journal will continue to act as a key source of scholarly knowledge and critical analysis on issues around education, media and technology that have long, contested histories and uncertain futures. The pandemic politics, pedagogies and practices characteristic of education in 2020 call for a reinvigorated approach to research on educational technologies and media that is driven by critical and theoretically-informed analysis. *Learning, Media and Technology* remains a key forum for original research in these areas. We welcome contributions that not only take the current pandemic as their focus or context of analysis, but continue to advance our understanding of historically and contextually-specific education and technology-related policies, practices, and problems that are now more urgent than ever.

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